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EXAMINER

SHAW, YIN CHEN

ART UNIT	PAPER NUMBER
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2135

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/827,593

Applicant(s)

HAMALAINEN ET AL.

Examiner

Yin-Chen Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/17/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19, 21-59, 61-70, 74-82, 84-94, 96-97, 122 and 123 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19, 21-59, 61-70, 74-82, 84-94, 96-97, and 122-123 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This written action is responding to the Request for Continued Examination (RCE) dated on 01/22/2007.
2. Claims 19, 21-59, 61-70, 74-82, 84-97, and 122-123 are submitted for examination.
3. Claims 19, 21-59, 61-70, 74-82, 84-97, and 122-123 are pending.
4. In regard to the newly amended independent claims that recite the limitation, "indicating to a user of the mobile station that the mobile communication network is configured to use an enciphered mode of communication," Examiner would like to point out that the teaching from Bocci regarding displaying the a visual indication as a light of the receipt of a decrypted signal still meets the newly amended claim limitation since decrypted signal means that the communication taken place is in the enciphered mode, and the visual indication is displayed as light to the user. In addition, the newly added reference by Morgan also teaches the unit is in enciphered mode and displaying the (enciphering) information to the user (see Col. 3 lines 65-67, Col. 4 1-3 and 39-46 in Morgan). Therefore, the combination of Talbot, Bocci, and Morgan meets the newly amended independent claims.

Claim Rejections - 35 USC § 103

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19, 21-23, 27-29, 48, 59, 61-65, 67-69, 71-73, 77-79, 81-82, 84-85, 87, 90-91, 93-94, and 96-98 rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot in view of Bocci et al, US Patent No. 4,440,976, hereinafter "Bocci" and Morgan et al., US Patent No. 4,229,817, hereinafter "Morgan".

5. As per claims 19, 48, 59, 65, and 82:

Talbot discloses "A method for determining a ciphering mode of data communication between a mobile communication network and a mobile station in the mobile communication network, the mobile station being capable of communication in at least one enciphered mode of communication and in at least one enciphered mode of communication" in (Col 3 lines 22-45), "the method comprising:

"monitoring at the mobile station signal sent from the mobile communication network to the mobile station" in (Col. 1 lines 22-27 and Col. 10 45-46);

in a situation where in which the mobile communication network is configured to use an enciphered mode of communication, sending from the mobile communication network to the mobile station a cipher mode control signal, the cipher mode control signal to indicate that for setting the mobile station into an enciphered mode of communication" in (Col 3 line 60 to Col 4 line 12);

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Talbot does further disclose monitor at the mobile station a cipher signature and then switching the communication to a cipher mode” in (Col 3 line 60 to Col 4 line 12, and Col 9 lines 30-55).

However, Talbot does not teach of “if monitored signals comprise a cipher mode control signal, setting the mobile station into the enciphered mode of communication and indicating to a user of the mobile station that the mobile communication network is configured to use an enciphered mode of communication”.

Nevertheless, Bocci does disclose a method of communicating securely utilizing a cipher communication signal, such as continuously-variable-slope delta modulation (CVSD). Further, the display unit 28 displays a visual indication to a signal from the particular delta-modulation detector 18, 20, or 22 that signals receipt of a decrypted signal. A user interface allows the use to select the correct encrypt key to decrypt the signal for communication (Col 3 lines 55-67, and Col 4 lines 40-52).

In addition, Morgan discloses the indication to a user of the mobile station that the encipher mode is configured for communication (Col. 3 lines 65-67, Col. 4 1-3 and 39-46).

Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Talbot’s teaching to implement Bocci’s encipher signal control to interact with the enciphered communication signal and to implement Morgan’s user indication of the encipher mode for communication since one would be motivated to (1) have a receiver for digital signals that is adapted to decrypt signals encrypted according to a plurality of different keys subjects the encrypted signal simultaneously to decryption according to each of the keys available to the receiver (lines 41-45, Col. 2 from Bocci) and (2) have portable cryptographic device capable of enciphering and deciphering (lines 9-10, Col. 1 from Morgan).

6. As per claims 21 and 61:

Talbot and Morgan disclose "A method according to claims 19 and 59, further comprising the step of indicating that to a user of the mobile station that the mobile communication network is configured to use an unciphered mode of communication if said monitored signals do not comprise a cipher mode control signal" in (Col 3 line 57 to Col 4 lines 30, and Col 10 line 65 to Col 11 line 10 from Talbot) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

7. As per claims 22 and 62:

Talbot discloses "A method according to claims 19 and 59, wherein a ciphering mode to be used in communication between the mobile communication network and the mobile station is specified by an operator of the mobile communication network" in (Col 10 lines 9-30).

8. As per claims 23, and 63-64:

Talbot discloses "A method according to claims 19, 59, and 63, comprising determining the ciphering mode to be used in communication between the mobile communication network and the mobile station is during establishment of communication between the mobile communication network and the mobile station" in (Col 10 lines 9-30).

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9. As per claim 27:

Bocci and Morgan discloses "A method according to claim 19, further comprising:
maintaining a cipher mode indication data field in the mobile station;
initially setting said cipher mode indication data field into a first state indicative the mobile communication network is configured to use that an enciphered mode of communication; and
in a situation in which said monitored signals comprise a cipher mode control signal, updating the state of the cipher mode indication data field into a second state indicative that the mobile communication network is configured to use an enciphered mode (delta modulation detection) of communication" in (Col 3 line 18-55 from Bocci) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

10. As per claims 28 and 68:

Bocci and Morgan disclose "A method according to claims 19 and 59, further comprising indicating a ciphering mode (Delta modulation detection), a change in ciphering mode to a user of the mobile station" in (Col 3 line 30-50 from Bocci) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

11. As per claim 29:

Talbot discloses "A method according to claim 19, wherein communication between the mobile communication network and the mobile station takes place at least in part over a radio link" in (Col 1 lines 5-13).

12. As per claim 65:

Talbot and Morgan teach "An apparatus according to claim 59, further comprising: means for maintaining a cipher mode indication data field; means for setting said cipher mode indication data field initially into a first state indicative that the mobile communication network is configured to use an un-ciphered mode of communication" in (Col 3 line 60 to Col 4 line 12); "and means responsive to said determining means for changing the state of the cipher mode indication data field into a second state indicative that the mobile communication network is configured to use an enciphered mode of communication, if said monitored signals comprise a cipher mode control signal" in (Col 3 line 60 to Col 4 line 12) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

13. As per claims 77, 79, 81, 87, and 93:

Bocci and Morgan disclose "An apparatus according to claims 76, 78, 80, 86, and 92, further comprising a cipher mode indicator, the user interface block being arranged to control the cipher mode indicator according to said indication" in (Col 4 lines 40-54) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

14. As per claims 78, 90, and 91:

Bocci and Morgan disclose "An apparatus according to claims 74, 86, and 90, further comprising a user interface block, wherein the cipher indication memory block provides an indication of the

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state of said cipher mode indication data field to the user interface block when the state of said cipher mode indication data field is changed” in (Col 4 lines 40-54) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

15. As per claim 84:

Talbot and Morgan disclose “A mobile station according to claim 82 wherein said means responsive to said determining means for indicating a ciphering mode to a user of the mobile station are further configured to indicate that the mobile communication network is configured to use an un-ciphered mode of communication, if said monitored signals do not comprise a cipher mode control signal” in (Col 3 line 60 to Col 4 line 12) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

16. As per claims 85 and 94:

Talbot teaches “A system for determining a ciphering mode of communication between a mobile communication network and a mobile station in the mobile communication network, the mobile station being capable of communication in at least one enciphered mode of communication and at least one un-ciphered mode of communication” in (Col 3 line 60 to Col 4 line 12), the system comprising:

means in the mobile communication network for determining whether an enciphered mode of communication is to be used in communication between the mobile communication network and the mobile station according to a setting of the mobile communication network (Col 3 line 60 to

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Col 4 line 12, and Col 4 lines 58-68); means in the mobile communication network for sending a cipher mode control signal from the mobile communication network to the mobile station in a situation where an enciphered mode of communication is to be used in communication between the mobile communication network and the mobile station, (Col 3 line 60 to Col 4 line 12); means in the mobile station for determining if signals comprise a cipher mode control signal; and means responsive to said determining means for indicating that an enciphered mode of communication is to be used in communication between the mobile communication network and the mobile station, if said monitored signals comprise a cipher- mode control signal (Col 3 line 60 to Col 4 line 12 and Col 3 lines 35-50).

However, Talbot does not teach of “means in the mobile station for monitoring signals sent from the mobile communication network to the mobile station; means in the mobile station for setting the mobile station into an enciphered mode of communication if said monitored signals comprise a cipher mode control signal said cipher mode control signal for setting the mobile station into an enciphered mode of communication; means for indicating a ciphering mode to a user of the mobile station”.

Nevertheless, Bocci does disclose a method of communicating securely utilizing a cipher communication signal, such as continuously-variable-slope delta modulation (CVSD). Further, the display unit 28 displays a visual indication to a signal from the particular delta-modulation detector 18, 20, or 22 that signals receipt of a decrypted signal. A user interface allows the use to select the correct encrypt key to decrypt the signal for communication (Col 3 lines 55-67, and Col 4 lines 40-52).

In addition, Morgan discloses the indication to a user of the mobile station that the encipher mode is configured for communication (Col. 3 lines 65-67, Col. 4 1-3 and 39-46). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Talbot's teaching to implement Bocci's encipher signal control to interact with the enciphered communication signal and to implement Morgan's user indication of the encipher mode for communication since one would be motivated to (1) have a receiver for digital signals that is adapted to decrypt signals encrypted according to a plurality of different keys subjects the encrypted signal simultaneously to decryption according to each of the keys available to the receiver (lines 41-45, Col. 2 from Bocci) and (2) have portable cryptographic device capable of enciphering and deciphering (lines 9-10, Col. 1 from Morgan).

17. As per claim 96:

Talbot and Morgan "A system according to claim 94, wherein said means for indicating a ciphering mode to a user o the mobile station are further configured to indicate that the mo bile communication network is configured to use an unciphered mode of communication, if said monitored signals do not comprise a cipher mode control signal" in (Col 3 line 60 to Col 4 line 12, Col 6 lines 1-12) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan).

18. As per claim 97:

Talbot teaches "A data processor external to a mobile station and capable of use with the mobile station for communication between the external data processor and a mobile communication

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network via the mobile station, the mobile station being capable of communication in at least one enciphered mode of communication and in at least one unciphered mode of communication (Col 3 line 60 to Col 4 line 12), the external data processor comprising apparatus for receiving from the mobile station, information concerning a ciphering mode used in communication between the mobile station and the mobile communication network, and means responsive to information received from the mobile station for indicating a ciphering mode used in communication between the mobile station and the mobile communication network” in (Col 3 line 60 to Col 4 line 12).

However, Talbot does not teach of “indicating via a user interface for the enciphered mode of communication”.

Nevertheless, Bocci does disclose a method of communicating securely utilizing a cipher communication signal, such as continuously-variable-slope delta modulation (CVSD). Further, the display unit 28 displays a visual indication to a signal from the particular delta-modulation detector 18, 20, or 22 that signals receipt of a decrypted signal. A user interface allows the use to select the correct encrypt key to decrypt the signal for communication (Col 3 lines 55-67, and Col 4 lines 40-52).

In addition, Morgan discloses the indication to a user of the mobile station that the encipher mode is configured for communication (Col. 3 lines 65-67, Col. 4 1-3 and 39-46). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Talbot’s teaching to implement Bocci’s encipher signal control to interact with the enciphered communication signal and to implement Morgan’s user indication of the encipher mode for communication since one would be motivated to (1) have a receiver for digital signals

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that is adapted to decrypt signals encrypted according to a plurality of different keys subjects the encrypted signal simultaneously to decryption according to each of the keys available to the receiver (lines 41-45, Col. 2 from Bocci) and (2) have portable cryptographic device capable of enciphering and deciphering (lines 9-10, Col. 1 from Morgan).

19. Claims 24-26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot, Bocci, and Morgan and further in view of Billstrom et al, US Patent No 5590133, hereinafter "Billstrom".

20. As per claims 24-25:

Talbot, Bocci, and Morgan disclose "A method according to claims 19 and 24". However, Bocci does not disclose "comprising determination of the ciphering mode to be used in communication prior to establishment of data communication between the mobile communication network and the mobile station is performed by means of a location update procedure".

Nevertheless, Billstrom discloses the "Apparatuses and Mobile stations for providing packet data communication in digital TDMA Cellular Systems" invention, which teaches "the determination of the ciphering mode to be used in data communication prior to establishment of data communication between the mobile communication network and the mobile station is performed by means of a location update procedure" in (Col 9 lines 20-50, and Col 10 lines 45-61) .

Therefore, it would have been obvious at the time of the invention was made for one ordinary

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skill in the art to incorporate Billstrom's invention with ciphering mode teaching in Talbot, Bocci, and Morgan to be mobilized with security.

21. As per claim 26:

Talbot, Bocci, and Morgan disclose "A method according to claim 19, comprising determining a ciphering mode to be used in data communication between the mobile communication network and the mobile station is determined during a initiation process (Col 3 line 60 to Col 4 line 12 from Bocci) and (Col. 3 lines 65-67, Col. 4 1-3 and 39-46 from Morgan). However, Bocci is silent on a ciphering mode to be used in data communication between the mobile communication network and the mobile station is determined during a communication handover procedure that occurs when the mobile station moves between a first part of the mobile communication network and a second part of the mobile communication network". Nevertheless, Billstrom discloses the "Apparatuses and Mobile stations for providing packet data communication in digital TDMA Cellular Systems" invention, which teaches a method of negotiating a cipher mode during a handover process (Col 8 lines 46 to Col 9 line 20, and Col 9 lines 20 to 67). Therefore, it would have been obvious at the time of the invention was made for one ordinary skill in the art to incorporate Billstrom's invention with cipher mode indication and the user select capability in the handover process to provide options to authenticate and maintain a secure communication connection at the user consent inter-connection network as taught in Talbot, Bocci, and Morgan.

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22. As per claim 30:

Talbot, Bocci, and Morgan teach a method according to claim 19, wherein the mobile communication network is a wireless network. However, Bocci is silent on the network is a GSM network. Nevertheless, Billstrom does teach a ciphering mode to mobile communication over a GSM network (Col 6 line 15). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify the invention to implement in GSM network for better coverage and mobility as taught in Talbot, Bocci, and Morgan.

23. Claims 31-34, 66-67, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot, Bocci, and Morgan and further view of Lewis et al, US Patent No. 6192255, hereinafter "Lewis".

24. As per claims 31 and 66:

Talbot, Bocci, and Morgan disclose "A method according to claims 19 and 59. However, Talbot, Bocci, and Morgan disclose does not mention that "the mobile station comprises a display unit the method comprising indicating the ciphering mode used in communication between the mobile communication network, and the mobile station to a user of the mobile station using the display unit". Nevertheless, Lewis discloses the "Communication System and Methods for Enhanced Information Transfer" invention, which includes the display unit in (Col 19 lines 50-57, and Col 20 lines 10-15). Therefore, it would have been obvious at the time of the invention

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was made for one having ordinary skill in the art to incorporate this feature to display the information for alerting the user.

25. As per claims 32 and 67:

Talbot, Bocci, and Morgan disclose "A method according to claim 19". However, Talbot, Bocci, and Morgan does not disclose, "the mobile station comprises a light source the method comprising indicating the ciphering mode used in communication between the mobile communication network and the mobile station to a user of the mobile station using the light source". Nevertheless, Lewis discloses "the mobile station comprises a light source and the ciphering mode used in data communication between the mobile communication network and the mobile station is indicated with the light source" in (Col 20 lines 10-15, and Col 16 lines 40-67). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to incorporate this feature to display the information for alerting the user.

26. As per claims 33 and 69:

Talbot, Bocci, and Morgan disclose "A method according to claims 28 and 68". However, Talbot, Bocci, and Morgan disclose does not disclose, "the mobile station comprises a display unit and an acoustic signal forming element, the method comprising indicating the ciphering mode used in communication between the mobile communication network and the mobile station to a user of the mobile station using the display unit, and indicating a change in ciphering mode to a user of the mobile station using the acoustic signal forming element". Nevertheless, Lewis

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discloses “the mobile station comprises a display unit and an acoustic signal forming element, the ciphering mode used in data communication between the mobile communication network and the mobile station is indicated with the display unit, and a change in ciphering mode is indicated with the acoustic signal forming element” in (Col 10 lines 53-67, Col 20 lines 10-15, and Col 16 lines 40-67)

Therefore, it would have been obvious at the time of the invention was made for one ordinary skill in the art to incorporate this feature to display the information for alerting the user.

27: As per claim 34:

Talbot, Bocci, and Morgan disclose “A method according to claim 32”. However, Talbot, Bocci, and Morgan does not disclose, “comprising indicating a change in ciphering mode is indicated with a flashing light”. Nevertheless, Lewis discloses “A change in ciphering mode is indicated with a flashing light” in (Col 20 lines 10-15, and Col 16 lines 40-67).

Therefore, it would have been obvious at the time of the invention was made for one ordinary skill in the art to incorporate this feature to display the information for alerting the user.

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28. Claims 35, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot, Bocci, and Morgan and further in view of Kniffin et al, US Patent No. 6072402, hereinafter "Kniffin"

29. As per claims 35 and 70:

Talbot, Bocci, and Morgan disclose "An apparatus characterized in that the means for indicating a change in the cipher mode by the flashing light and vibration. However, Talbot, Bocci, and Morgan does not teach a change in the cipher mode causing to generate vibration. Nevertheless, Kniffin does disclose "Secure Entry System with Radio Communications" invention, which including a signaling means to alert the user, such as beeping, vibrating, or displaying in (Col 7 lines 10-15, and Col 10 lines 10-20). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to incorporate alert mechanism with Bocci's invention to sensing different event conveniently alert the user.

30. Claims 44-47 and 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot, Bocci, and Morgan and further in view of Serbetcioglu et al, US Patent No. 5719918, hereinafter "Serbetcioglu", and further in view of Kniffin.

31. As per claims 44 and 46-47:

Talbot, Bocci, and Morgan disclose "A method according to claim 19, wherein the mobile station is capable of a first type of communication and an indication of a cipher mode".

However, Talbot, Bocci, and Morgan disclose are silent on "a second type of data

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communication, the method comprising indicating a ciphering mode of the second types of communication to a use of the mobile station". Nevertheless, Serbetciouglu does teach a second type of data ciphering mode communication (Col 9 lines 15-50). However, neither Talbot, Bocci, and Morgan nor Sebetciouglu teaches a method of indicating the second type of ciphering mode. Nevertheless, Kniffin does teach a method of alert the user at different events (Col 7 lines 10-15, and Col 10 lines 10-2). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to incorporate Bocci's invention with Serbetciouglu's invention to implement two types of data ciphering communication in a wireless network and incorporate kniffin's invention to monitor different events of power fluctuation to alert the user of an incoming communication type ciphering events.

32. As per claim 45:

Talbot, Bocci, Morgan, Serbetciouglu, and Kniffin disclose "A method according to claim 44, wherein the first type of communication is a telephone call and said second type of data communication is a short message (SMS)" in (Serbetciouglu, Col 7 lines 10-15).

33. As per claim 55:

Talbot, Bocci, and Morgan disclose "A method according to claim 19, wherein a mobile station is in communication with a terminal in a fixed line communication network, and the method further comprising indicating a ciphering mode used in communication between the fixed line communication network and the terminal in the fixed line communication network is indicated to a user of the mobile station" in (Col 3 line 60 to Col 4 line 12 from Bocci).

34. As per claim 56:

Talbot, Bocci, Morgan, Serbetciouglu, and Kniffin disclose “A method according to claim 55, wherein the mobile station sends an inquiry message to the terminal in the fixed line communication network to determine the ciphering mode used in communication between the fixed line communication network and said terminal in the fixed line network” in (Col 3 line 60 to Col 4 line 12).

35. As per claim 57:

Talbot, Bocci, Morgan, Serbetciouglu, and Kniffin disclose “A method according to claim 56, wherein if the mobile station does not receive a response to said inquiry message, the mobile station indicates that the ciphering mode is unknown” in (Col 4 lines 58-68).

36. As per claim 58:

Talbot, Bocci, Morgan, Serbetciouglu, and Kniffin disclose “A method according to claim 55, wherein if the mobile station receives a response to said inquiry message, but cannot interpret said response the mobile station indicates that the ciphering mode is unknown” in (Col 4 lines 58-68).

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37. Claims 36-40, 41-43, 74-76, 80, 86, 88-89, 92, and 122-123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot, Bocci, and Morgan and further in view of Kennedy et al, European Patent No. 0680171A2, hereinafter "Kennedy".

38. As per claims 36 and 74:

Talbot, Bocci, and Morgan Serbetciouglu, and Kniffin disclose discloses "An apparatus according to claims 19, 59 and 86, wherein the resource management block is the actual user intervention control (Col 9 lines 30-48)". However, Talbot, Bocci, and Morgan does not specifically teach "the apparatus comprises of: a radio resource management block and a cipher indication memory block, wherein said means for monitoring signals sent from the mobile communication network to the mobile station and said means for determining if said monitored signals comprise a cipher mode control signal are arranged in the radio resource management block and a cipher mode indication data field is maintained in the cipher indication memory block, the radio resource management block being further arranged to set the cipher mode indication data field in said cipher indication memory block to correspond with cipher indication data in a cipher mode control signal received from the mobile communication network".

Nevertheless, Kennedy discloses "the radio resource management block (Col 3 lines 35-44, and Col 4 lines 8-13; Security System Controller) and a cipher indication memory block (also in the Security System Controller) wherein said means for monitoring signals sent from the mobile communication network to the mobile station and said means for determining if said monitored signals comprise a cipher mode control signal are arranged in the radio resource management block and a cipher mode indication data field is maintained in the cipher indication memory block, the radio resource management block being further arranged to set the cipher mode

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indication data field in said cipher indication memory block to correspond with cipher indication data in a cipher mode control signal received from the mobile communication network (Col 4 line 5 to Col 5 line 28)". Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to incorporate the features in Kennedy to Bocci's invention to electronically control the mode of the communication.

39. As per claims 37, 75, and 89:

Talbot, Bocci, and Morgan, Serbetciouglu, and Kniffin disclose "A method according to claims 36, 74, and 88". However, Talbot, Bocci, and Morgan does not teach "the said cipher indication memory block makes an interrupt request in response to a change in the cipher mode indication data field". Nevertheless, Kennedy does teach this feature in (Col 4 lines 8-13). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Bocci's invention to incorporate Kennedy's feature to electronically controller the mode of the communication.

40. As per claims 38, 41, 76, 88, and 92:

Talbot, Bocci, and Morgan, Serbetciouglu, and Kniffin disclose "A method according to claims 37, 40, 75, 87, and 86, wherein the user interface block detects said interrupt request and sends an inquiry to the cipher indication memory block to inquire about the state of the cipher mode indication data field, and the cipher indication memory block returns an indication of the state of said cipher mode indication data field in response to said inquiry" in (Bocci, Col 9 lines 30-48).

41. As per claims 39, 40, and 43:

Talbot, Bocci, and Morgan, Serbetciouglu, and Kniffin disclose “A method according to claims 36, 38, 42, 76, 78, 80, and 92, wherein the mobile station comprises a cipher mode indicator and the user interface block controls the cipher mode indicator according to said indication of the state of the cipher mode indication data field” in (Bocci, Col 9 lines 30-48).

42. As per claims 42, 80:

Talbot, Bocci, and Morgan, Serbetciouglu, and Kniffin disclose “An apparatus according to claims 36 and 74, further comprising a user interface block, wherein the user interface block is operable to send repeated inquiries to the cipher indication memory block about the state of the cipher mode indication data field, each inquiry being separated in time from the next by a predetermined interval and the cipher indication memory block is operable to return an indication of the state of the cipher mode indication data field in response to each inquiry” in (Bocci, Col 9 lines 30-48).

43. As per claim 86:

Claim 74 rejection basis is incorporated. Further, Kennedy teaches “the first state being indicative of an un-ciphered mode of communication to be used in data communication between the communication network and the mobile station” in (Col 9 lines 30-48).

44. As per claims 122-123:

Talbot disclose an apparatus for determining a ciphering mode of communication between a mobile communication network and a mobile station, the mobile station being capable of communication in at least one enciphered mode of communication and at least one unciphered mode of communication.

Talbot further discloses the mobile communication network is configured to use an enciphered mode of communication (Col 3 line 60 to Col 4 line 12).

Talbot does not expressly disclose an indicator for indicating a ciphering mode to a user of the mobile station, said indicator being operable to indicate that the mobile communication network is configured to use an enciphered mode of communication responsive to an indication from the radio resource management block that said monitored signals comprise a cipher mode control signal. However, Bocci does disclose a method of communicating securely utilizing a cipher communication signal, such as continuously-variable-slope delta modulation (CVSD). Further, the display unit 28 displays a visual indication to a signal from the particular delta-modulation detector 18, 20, or 22 that signals receipt of a decrypted signal. A user interface allows the use to select the correct encrypt key to decrypt the signal for communication (Col 3 lines 55-67, and Col 4 lines 40-52). In addition, Morgan discloses the indication to a user of the mobile station that the encipher mode is configured for communication (Col. 3 lines 65-67, Col. 4 1-3 and 39-46) and Kennedy discloses "the radio resource management block (Col 3 lines 35-44, and Col 4 lines 8-13, Security System Controller) and a cipher indication memory block (also in the Security System Controller) wherein said means for monitoring signals sent from the mobile communication network to the mobile station and said means for determining if said monitored

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signals comprise a cipher mode control signal are arranged in the radio resource management block and a cipher mode indication data field is maintained in the cipher indication memory block, the radio resource management block being further arranged to set the cipher mode indication data field in said cipher indication memory block to correspond with cipher indication data in a cipher mode control signal received from the mobile communication network (Col 4 line 5 to Col 5 line 28).

Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Talbot's teaching to implement Bocci's encipher signal control to interact with the enciphered communication signal, to implement Morgan's user indication of the encipher mode for communication, and electronically control the mode of the communication with radio management block from since one would be motivated to (1) have a receiver for digital signals that is adapted to decrypt signals encrypted according to a plurality of different keys subjects the encrypted signal simultaneously to decryption according to each of the keys available to the receiver (lines 41-45, Col. 2 from Bocci), (2) have portable cryptographic device capable of enciphering and deciphering (lines 9-10, Col. 1 from Morgan), and (3) have secure system for the telecommunication system (lines 3-5, Col. 1 from Kennedy).

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45. Claims 49-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot, Bocci, and Morgan and further in view of Kennedy, and further in view of Lewis et al, US Patent No. 6192255, hereinafter "Lewis".

46. As per claim 49:

Talbot, Bocci, and Morgan disclose "A method according to claim 19". However, Bocci does not disclose "the mobile station is used in connection with a data processor external to the mobile station for communication between the mobile communication network and the external data processor, the external data processor comprising a display unit, the method comprising indicating a ciphering mode used in data communication between the mobile station and the mobile communication network on the display unit of the external data processor".

Nevertheless, Kennedy does teach a mobile station is used in connection with a data processor external to the mobile station, and the external data processor comprising a display unit (Figure 2, and Col 1 lines 1-5). The external data processor is another mobile station in connection with the mobile station. The display unit is shown in Figure 9. However, Neither Bocci or Kennedy teaches the ciphering mode is indicated on the display. Nevertheless, Lewis does teach "the indication alert on the display of the ciphering mode" in (Col 19 lines 50-57, and Col 20 lines 10-15). The indication alert gets generated from the power fluctuation sensed by the sensor circuit. Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Bocci's invention to incorporate Kennedy's and Lewis's teaching to create a complete solution to electronically control the cipher communication and conveniently display the status of the communication for the user.

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47. As per claim 50:

Claim 49 rejection basis is incorporated. Further, Lewis teaches “the external data processor further comprises an acoustic signal forming element, the method comprising indicating a change in ciphering mode used in data communication between the mobile station and the mobile communication network is indicated with the acoustic signal forming element of the external data processor” in (Col 5 lines 10-25).

48. As per claim 51:

The rejection basis of claim 49 is incorporated, wherein an indication of the state of the cipher mode indication data field to the external data processor” in (Bocci, Col 3 line 60 to Col 4 line 12).

49. As per claim 52:

The rejection basis of claim 49 is incorporated, wherein the mobile station and the external data processor are connected by means of a connection bus” in (Fig 1, Col 3 line 60 to Col 4 line 12).

50. As per claims 53-54:

The rejection basis of claim 49 is incorporated. The mobile station comprises a cipher indication memory block which maintains a cipher mode indication data field indicative of a ciphering mode used in communication between the mobile communication network and the mobile station, and the external data processor is provided with application software for monitoring the

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ciphering mode used in communication between the mobile station and the mobile communication network, wherein the application software in said external data processor sends a cipher mode inquiry message to the mobile station to determine the state of the cipher mode indication data field maintained in said cipher indication memory block of the mobile station” in (Bocci, Col 3 line 60 to Col 4 line 12, and Col 9 lines 30-47).

Conclusion

51. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Raith et al. (U.S. Patent 5,603,081) disclose a communications system in which information is transmitted in a plurality of time slots grouped into a plurality of superframes which are, in turn, grouped into a plurality of paging frames. A remote station receives paging messages once in each paging frame.

52. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yin-Chen Shaw whose telephone number is 571-272-8593. The examiner can normally be reached on 8:15 to 4:15 M-F. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Yen Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is

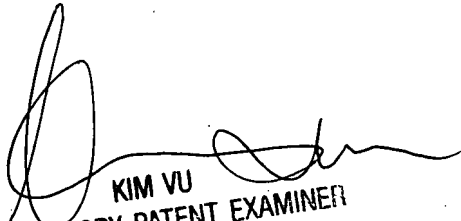
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571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YCS

Sep. 28, 2007



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